```
function  out=combine(obj, n)
if n==1, out=obj(:);   return;  end


if n==length(obj),  out=obj(:)'; return;  end


out = [];

for i=1:length(obj)-1,

  first=obj(i);

    tail=obj(i+1:length(obj));

  tail_combinat=combine(tail, n-1);

  loop_out=[first*ones(size(tail_combinat,1), 1),
  tail_combinat];

  out=[out; loop_out];
 end
```

假設 obj = a b c n=1時

ans =

out = obj(:)

a
b
c

原本 a b c 改成 a b c

假如 n=3 時

ans =

a b c

out = obj(:)

轉置

假如 n=2

for i = 1 : 2

i=1 ① first = a , tail = obj(2:3); ⇒ tail = bc

tail_combinat = combine(bc , 2-1); → 遞迴 function out = combine (bc, 1)

這時 n=1

out = [b c]

也: tail_combinat = [b c]

loop_out = [a * ones(size([b c], 1), 1), [b c]]

= [a * ones(2 , 1), [b c]] = [a*[1], [b c]] = [a a] [b c]

= a b
  a c

out = [out; loop_out]; 換行 最先 out = [];

∴ ans

a b
a c

當 i=2 看不見

first = b , tail = c

tail_combinat = combin(c , 2-1); → 返回最前面 n=1

∴ out = c

回到

tail_combinat = c

loop_out = [b * ones(size(c,1), 1), c]

= [b * ones(1 , 1) , c] = [b , c]

∴ loop_out = bc

Ans 最後 ab
ac
bc

你可在 Matlab 的 command window 內下 command.

>> doc size , 及 doc ones 都會有說明.

例如 >> X = ('abc')'

$X = \begin{bmatrix} a \\ b \\ c \end{bmatrix}$

>> size(X,1) ans = 3

另外 permute - 都要改為 permute2 因為 permute 為 matlab 內建要多收

一題排列

在程式內有註解 % 沒關係.